



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/600,749

06/19/2003

Shigeru Sugaya

SONYJP 3.0-1008

6001

530 7590 02/23/2009
LERNER, DAVID, LITTENBERG,
KRUMHOLZ & MENTLIK
600 SOUTH AVENUE WEST
WESTFIELD, NJ 07090

EXAMINER

WONG, BLANCHE

ART UNIT

PAPER NUMBER

2419

MAIL DATE

DELIVERY MODE

02/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/600,749	SUGAYA, SHIGERU	
	Examiner	Art Unit	
	Blanche Wong	2419	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-8 and 10-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,4-8,10-13,20,22 and 23 is/are allowed.
- 6) ☒ Claim(s) 14,17 and 21 is/are rejected.
- 7) ☒ Claim(s) 15,16,18,19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 14-19 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (U.S. Pat No. 6,233,454).

With regard to claims 14,17,21, Sato discloses
receiving first beacon information (**pilot channel, col. 1, line 26**) from a first control station (**base station**) of a first one of the plurality of wireless networks located in a predetermined beacon information receiving range ("**peculiar to that base station**", col. 1, line 28);

detecting second beacon information from a second control station of a second one of the plurality of wireless network ("**each base station notifies the mobile station**", col. 1, lines 28-29) (**There is a second base station**);

detecting whether the first beacon information collides with the second beacon information (**ratio of a target signal to interference noise, col. 1, lines 31-32**); and

notifying the first control station of the first network of a beacon information collision detection result ("**The mobile station ... measures the [SIR] ... and then notifies the network of the measured result**", col. 1, lines 34-35).

Official notice is taken that it is possible that the interference is from a second beacon information of a second base station b/c "each base station notifies the mobile station [via its own respective pilot channel]", col. 1, lines 28-29.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include interference from a second beacon information from a second base station in order to provide for a network of more than one base station to obtain the invention as recited "detecting second beacon information from a second control station of a second one of the plurality of wireless network and whether the first beacon information collides with the second beacon information" in claims, 14,17,21.

Allowable Subject Matter

3. **Claims 2,4-8,10-13,20,22,23** are allowed.
4. Claims 15,16,18,19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 2,8,20, the prior art of record fails to anticipate or make obvious a radio communication apparatus, method and computer readable medium

Art Unit: 2419

storing a computer program “setting a transmission frame period of the given wireless network and transmitting at a predetermined time within the transmission frame period, beacon information regarding resource allocation; detecting whether the given wireless network interferes with another one of the plurality of wireless networks; and setting, upon detection of interference between the given wireless network and the another wireless network, a buffer frame period that is of different length than the transmission frame period to change a timing of the transmission frame period, wherein the detecting step detects interference of the beacon information of the given wireless network based on parameters obtained by receiving further beacon information received from the another wireless network.

With regard to claim 22, the prior art of record fails to anticipate or make obvious a radio communication system comprising: “a plurality of wireless networks, each one of the plurality of wireless networks including an associated plurality of radio communication apparatuses and an associated control station, the associated control station being operable to allocate a resource to each associated radio communication apparatus of that wireless network in an associated transmission frame period and to transmit a beacon signal at a predetermined timing within the associated transmission frame period, wherein upon detection of interference between at least two of the plurality of wireless networks, a buffer frame period having a different length than the associated transmission frame period is set temporarily in one of the at least two wireless networks to prevent a collision between a first beacon signal transmitted by a

Art Unit: 2419

first control station associated with the one of the at least two wireless networks and a second beacon signal transmitted by a second control station associated with another of the at least two wireless networks, the buffer frame period adjusting a length of an interval between the first beacon signal and the second beacon signal.”

With regard to claim 23, the prior art of record fails to anticipate or make obvious a radio communication system comprising: “a plurality of wireless networks, each one of the plurality of wireless networks including an associated plurality of radio communication apparatuses and an associated control station, the associated control station being operable to allocate a resource to each associated radio communication apparatus of that wireless network in an associated transmission frame period, the associated frame period including a non-competitive transmission field; wherein upon detection of interference between at least two of the plurality of wireless networks, a buffer frame period having a different length than the associated transmission frame period is set temporarily in one of the at least two wireless networks to prevent competition between a first non-competitive transmission field of a first transmission frame period associated with the one of the at least two wireless networks and a second non-competitive transmission field of a second transmission frame period associated with another of the at least two wireless networks, the buffer frame period adjusting a positional relationship between a timing of the first transmission frame period and a timing of the second transmission frame period.”

Art Unit: 2419

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on 571-272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blanche Wong/
Examiner, Art Unit 2419
February 17, 2009

/Edan Orgad/
Supervisory Patent Examiner, Art Unit 2419